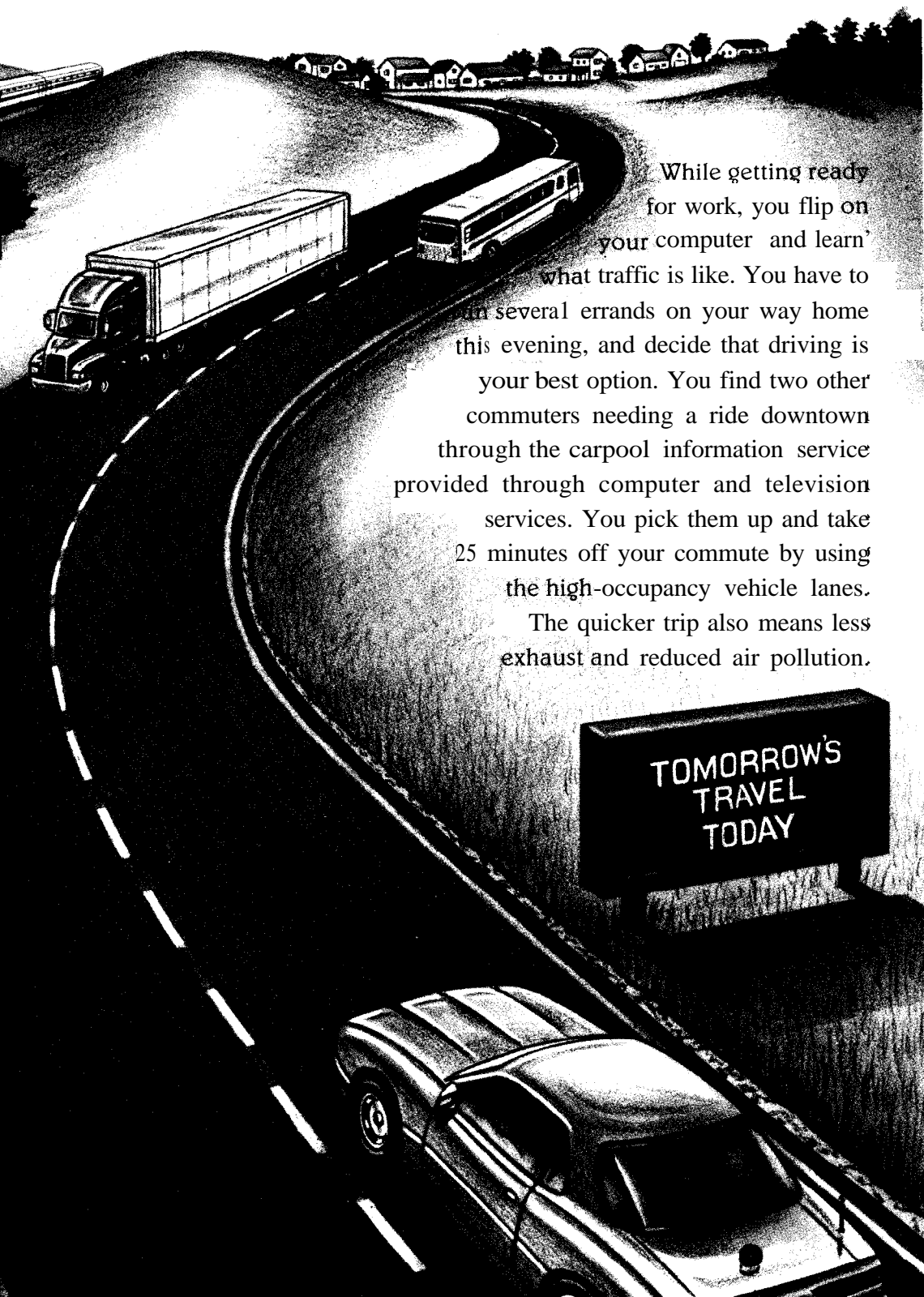# IMAGINE...

While getting ready for work, you flip on your computer and learn what traffic is like. You have to run several errands on your way home this evening, and decide that driving is your best option. You find two other commuters needing a ride downtown through the carpool information service provided through computer and television services. You pick them up and take 25 minutes off your commute by using the high-occupancy vehicle lanes. The quicker trip also means less exhaust and reduced air pollution.

TOMORROW'S TRAVEL TODAY

IMAGINE...

You are driving in the rain on the

Long Island Expressway. Sud-

denly, you skid, spin around

180 degrees, slam into the

guardrail and come to a stop.
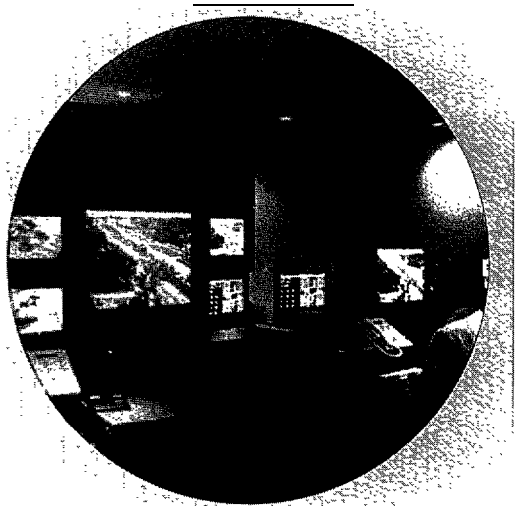
Instantly, an on-board

computer uses radio waves

and satellite technology to alert

emergency services of your vehicle's

exact location. The nearest ambulance and police

car hurry to the scene. A traffic management

center reroutes and clears traffic and changes

traffic signals to allow the vehicles to get

to the accident as quickly as possible —

saving minutes — and your life.

IMAGINE...

You are visiting relatives

in a large city and take

a wrong turn. You're lost

in a dangerous part of town.

Rather than stop and ask for

directions. you ask your car's

route guidance system how to

get out of the area. You follow the

precise directions on the computer

screen mounted near the dashboard — reinforced

by voice messages telling you exactly when

and where to turn. Within minutes,

you're back on track.

Imagine...

A truck driver, carrying his load on a rural
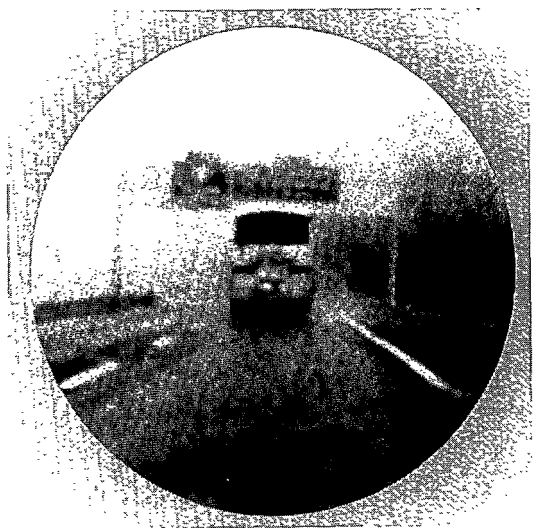
two-lane highway, is enveloped in dense fog.

He can't see a thing. A car is stalled up ahead.

But a vision-enhancement system that

uses radar technology can see for him

and warns him there's an obstacle

up ahead. The driver brakes in

time to avoid a collision.

THE FUTURE IS NOW...

Imagine a transportation network linked by information and technology that makes travel quicker, safer and easier. Imagine being able to plot your route before you leave your home or office and know exactly how long it will take you — by car, sub- way or bus. Imagine when transportation has moved fully into the information age.

This may sound like a far-off dream. But some people in Florida, Michigan, Oklahoma, the North- east corridor, Southern California, Chicago and elsewhere throughout the nation are traveling quicker, safer, easier — and cleaner-thanks to ITS — Intelligent Transportation Systems.

WHAT IS ITS?

ITS is the use of technology to improve the movement of people and goods in America. The goal is safer, quicker travel. Benefits that are available now include:

Better travel information

Information centers provide up-to-date, real-time details on bus, transit and train arrivals and other travel information through cable television in the home, kiosks in the workplace and electronic messages at the bus stop.
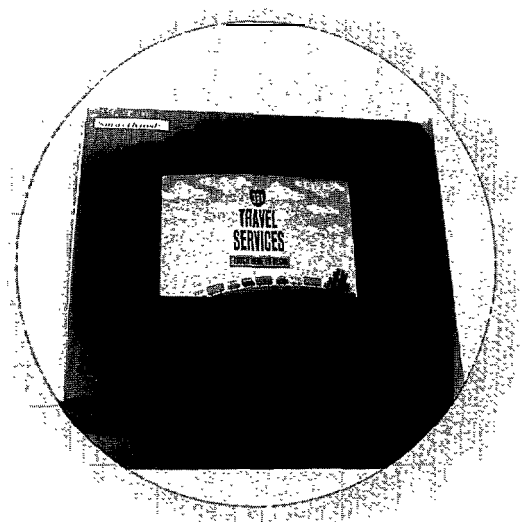
Quicker emergency response.

Electronic accident detection allows trained operators to locate then judge the nature of an accident so they can quickly dispatch and guide the right emergency personnel and equipment to the site.

Easier travel.

Navigation systems in the car or truck tell drivers exactly how to get to their destination.

Improved traffic flow.

A driver with a toll debit card attached to his vehicle can travel through toll plazas without stopping. His toll charges are deducted automatically from a prepaid account. Other travel fare collection systems, like SMARTCARDS, allow subway fares, transfers and other fees to be charged to one card.

Fewer traffic jams.

Traffic management centers reduce traffic jams and speed travel by continuously monitoring current conditions and adjusting speed limits, traffic signals and roadway ramp access.

Improved trucking management.

Bus, freight and emergency vehicle tracking systems allow supervisors to track vehicles and to communicate directly with drivers.

Faster freight deliveries.

ITS provides for electronic weighing and inspection of commercial vehicles while in motion, electronic issuing and monitoring of transportation permits and automatic tracking of containers.

Other systems are being tested and will soon come to market. Innovations both inside and outside the vehicle will improve safety by checking a driver's vision and motor skills, providing on-board road signing and vision enhancements, warning of vehicles and other obstacles in a blind spot, and preventing vehicIes from hitting other objects on the road through vehicle control and warning systems.

ITS Improves Safety

ITS makes travel safer. ITS technologies warn drivers that they are too close to a car in the next lane or that they are in danger of running off the edge of the road.

New traffic control systems can reduce the number of vehicle stops. minimize changes in vehicle speeds and improve traffic flow-all of which reduce accidents.

Experts estimate that in 15 years, ITS will save at le;ast 3,300 lives and prevent 400,000 injuries each year.

With the help of ITS. injury accidents in the Oakland County, Michigan area have dropped 6 percent, total injuries are down by 27 percent and serious injuries reported have dropped dramatically.

Greyhound Lines has installed systems on its bus fleet which give collision warnings for the front of the vehicle and lane change warnings for obstructions in the driver's blind spot. As a result, Greyhound's accident rate fell 21 percent from 1992 to 1993.

The Oklahoma Turnpike's PIKEPASS automatic toll collection system allows drivers to pay their tolls without stopping or even slowing down. In 1992, there were 7 1 accidents on manned toll Ianes. But in the automatic PIKEPASS lanes that year there were no accidents.

And there's more to come...

Within two to four years, automobile manufacturers will offer a variety of in-vehicle products that make travel safer. Intelligent cruise control will automatically adjust a vehicle's speed when in traffic, reducing rear-end collisions and lowering vehicle emissions.

"Mayday" systems inside vehicles which automatically alert police, fire and other emergency personnel of accidents will become widely available.

Other ITS applications after the year 2000 will allow freight trucks to receive permits and clearances and move across state lines without stopping. ITS also will notify authorities of accidents involving hazardous materials, allowing them to respond faster and with appropriate equipment.
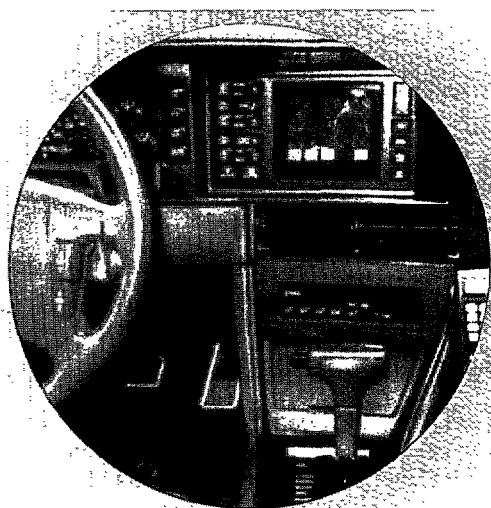
ITS Relieves Gridlock

ITS can help reduce traffic jams in a number of ways. Information provided to travelers helps them avoid backups by showing them how to go around the traffic, what alternative types of travel are available, or how they can change their trip plans altogether.

Rapid detection and clearing of accidents and obstacles reduces traffic delays. Improved public transportation systems can divert highway traffic. Real-time, dynamic traffic control systems adapt to traffic conditions automatically.

Electronic toll systems reduce congestion at toll plazas by collecting tolls automatically.

Information from travel kiosks and home computers and televisions about ridesharing provides new flexibility in organizing car- and van-pools — increasing the number of vehicles with multiple riders, meaning fewer cars on the road.

ITS helps travelers get to their destinations faster and safer. Better information — for example, real-time transit schedules and connection information — can make public transportation more convenient for potential riders. Better information on volunteer services and transit schedules allows older Americans and disabled travelers to get around more easily.

Experts predict that traffic jams can be reduced as much as 20 percent by 2011 in areas that use ITS.

Michigan's Oakland County FAST-TRAC project provides the proof. Drivers save an average of 5 minutes on a 24-minute commute. That's 10 minutes per day, 50 minutes per week and 43 hours per year!

Within five years, on-board computers will incorporate global positioning systems (GPS) and digital map databases. Automated vehicle identification and weigh-in-motion systems will be working on most major trucking corridors and international border crossings and will speed freight distribution and improve fleet management.

By the year 2000, drivers will learn about accidents and traffic delays as they occur and learn how to avoid these bottlenecks through dashboard computers.

ITS Creates Jobs and Lowers the Costs of Goods

The importance of efficient transportation to the nation's economic health cannot be overstated. Nearly all economic activity uses transportation directly or indirectly. Total transportation spending makes up nearly 20 percent of the nation's economy each year. Each year, more than $330 billion is spent on freight movement and aImost $600 billion is spent on passenger travel. Improving the efficiency of our transportation system boosts economic productivity.

Operators of many commercial and public-sector fleets realize a variety of economic benefits from ITS. These include safety improvements, minimized delays due to traffic congestion, efficient routing of vehicles, and quicker movement of freight thanks to such innovations as electronic toll collection and in-motion electronic identification of trucks.

Retailers reduce inventory and overhead costs with "just-in-time" delivery improved by ITS applications.

The ITS industry is growing rapidly. In less than 20 years, ITS will become a $210 billion industry — providing high-paying, highly-skilled jobs, an improved economy and safer, more efficient transportation.

Government and industry are working together in a whole new way, establishing innovative partnerships to create jobs and expand the economy.

ITS Saves Money

Cost/benefit analyses show that over time ITS investments yield tremendous savings to the public sector and the private consumer.

Product and casualty insurance companies expect ITS safety features to reduce personal injury and insurance rates. Consumers save money on gasoline because they don't "waste" trips while lost. They are informed on how to make more efficient use of transit. They save in the cost of consumer goods because of lower transportation and warehousing costs.

Taxpayers save money, too. ITS investments use limited public resources in a more efficient manner. ITS will help reduce highway and transit wear and tear. The number of expensive and disruptive major reconstruction and resurfacing projects will decline. More efficient toll and freight charge collections are already reducing overhead costs and increasing revenues.

In Oklahoma, the cost of operating one manned toll lane is $176,000 per year. But the cost of operating a PIKEPASS automatic toll lane is only $15,800 per year — a savings of more than $160,000.
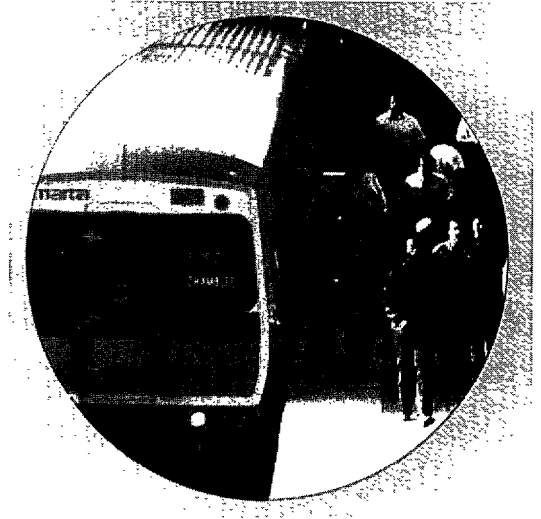
ITS Helps to Clean the Air and Save Energy

Decreased traffic and gridlock through ITS technology has already decreased energy use. Pollution can be decreased by smoother, more evenIy distributed traffic flow, as well as by increases in the use of public transit and car- and van-pooling.

ITS enables more travelers to use high-occupancy vehicle lanes. This reduces the number of cars on the road, reduces air pollution and helps employers and public officials meet clean air mandates.

ITS is cleaning the air in communities around the nation. The FAST-TRAC system in Michigan has the potential to reduce air pollution by up to 13 percent for some of the worst pollutants. There is also less noise pollution in the area as a result of more free-flowing traffic.

An independent environmental firm studied the impacts of Oklahoma's PIKEPASS automatic toll system. Cars and trucks using PIKEPASS lanes emitted up to 30 percent fewer pollutants than those vehicles operating in the manned toll lanes. At highway speeds, cars using PIKEPASS lanes emitted between 45 and 83 percent less pollution (depending on the pollutant) than those using manned lanes.

Your Role in ITS

Communities are beginning to realize the value of the breakthroughs in transportation from information technology. And far greater benefits are on the way.

A truly "intelligent" transportation system is being created. Issues of funding, privacy, coordination of public and private activities, costs, access for the disabled, choice of ITS goods and services, vehicle and infrastructure repairs, transportation data use and security are being discussed. Decisions are being made.

Your community needs you to understand and help plan for ITS.
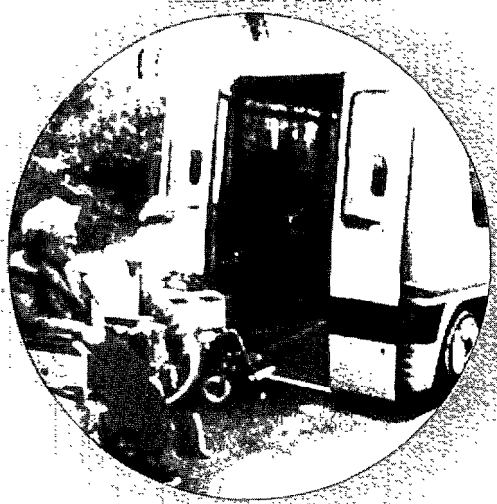
State and local governments play a larger and more important role in transportation decision-making than ever before. The Intermodal Surface Transportation Efficiency Act of 199 l (ISTEA) sought to place more power in the hands of local planners and lawmakers.

The American people want to reduce federal involvement in transportation. State and local governments want to determine their own transportation priorities. But these priorities must be established in recognition of increasing demands on state and local budgets and must make the most efficient use of limited transportation funds.

By participating in ITS America, you will:

- discover what applications already exist and how they can help your community now
- participate in the development of applications that address your constituents' needs
- serve as the general public's voice in addressing issues related to ITS development

The State Chapters Program

ITS America has developed a network of state chapters that connects members of ITS America to a host of state, local and regional deployment activities. These activities are being driven in large part by local governments and consumer markets. The State Chapters Program was begun in 1992 to serve the deployment interests of our member organizations.

Its purpose is to

- encourage information exchange
- develop greater grassroots participation
- create local private/public forums
- serve as resource for ITS America members

To date, chapters have been established in states with the highest concentrations of ITS deployment activity. Chapters in other states are forming at a rapid pace.

Each state chapter is independently run. The ITS America national organization, through the National/State Chapter Partnership Program, works closely with each chapter to provide important services, coordinate membership programs and ensure that local deployment activities are smoothly integrated into the national ITS program.

Organizations active in the State Chapters Program include:

- regional, state and local government agencies
- local and national private corporations
- universities and independent research organizations
- associations and public interest groups

These organizations, combined with the national ITS America member organizations, constitute the largest pool of ITS stakeholders in the world. Plus, some state chapters are forming consumer advisory groups whose input will serve as a valuable resource for member organizations interested in consumer acceptance of their products and services.

State Chapters offer the opportunity to:

- expand your network of ITS contacts both geographically and vertically within state chapter member organizations
- stay abreast of developments on the regional, state and local levels
- learn immediately of new deployment activities and contracting opportunities
- take advantage of opportunities to present your products and services to local stakeholders at any of an emerging series of local events

ITS America — Your ITS Forum

The Intelligent Transportation Society of America (ITS America) is the focal point for advanced surface transportation systems and their interests around the world.

It is a forum in which industry, government and academia meet to build consensus on developing and applying ITS. ITS America also is an Advisory Committee to the US. Department of Transportation.

ITS America's mission is to spearhead efforts to develop a safer, cleaner, more productive and more internationally competitive surface transportation system.

The success of ITS dependsupon building partnerships among federal, local, regional and state agencies, private industry, transportation users, interest groups and academia; as well as cooperation among nations. That's where ITS America comes in.

ITS America conducts a wide range of meetings and forums with trade associations. consumer groups. government agencies and other stakeholders in the ITS program. These meetings are designed to educate parties about ITS and provide them the opportunity to examine issues.

Your participation in these gatherings will help improve your — and the nation's — transportation system. ITS America is committed to success in this new era of transportation.

For more information on how you can participate contact your ITS America Representative.

ITS America
400 Virginia Ave., S.W.
Suite 800,
Washington, D.C. 20024
Phone (202) 484-4847 ● Fax (202) 484-3483

IMAGINE...

Where We Can Go From Here-

Cities, Counties,

and Towns

together—

ITS America...

Moving

Transportation

into the

Information

Age.